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■ **Examiner :** Gyu-An Lee

(54) A MANUFACTURING PROCESS OF COMPOSITION FOR REDUCING THE BODY WEIGHT AND CHOLESTEROL

● **Abstract**

Machine Translation

Human Translation

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The present invention has the effect that it is made of the material combination proportion configuration stage the extraction stand-by putting in material into extractor according to the mixing ratio and pours the spring water of the appropriate amount, the fetch phase heating with 100~120°C in extractor with 5~6 hour and extracts the component, the impurity filtration step, the first sterilization step, 100ml sealed package in the automatic packing machine the sanitation vial is the sealed package step the extract sterilized, and the keeping shipping step. The notice mode is the prevention of the obesity according to etc. and atherosclerotic the treatment supplement. It can be very usefully used as the weight-reducing agent or the weight reduction assistance including the beautiful face etc. The material combination proportion configuration stage more concretely, it prepares in the thing about the manufacturing method of the food composition for the weight loss and cholesterol reduction in the weight ratio of the hovenia dulcis 45 weight weight%, the Hovenia dulcis fruit (hoveniae Semen cum Fructus) 33 weight%, the Linderæ Ramulus 10 weight%, the mult-comb habit 7 weight%, the Glycyrrhizæ Radix 3 weight%, the jade palpus 2 weight%. The fetch phase heating with 100~120°C in extractor with 5~6 hour and extracts the component material contains. The impurity filtration step moves the liquid extracted to the filter and filtered to the minute filter cloth. The first sterilization step moves the extract filtered to sterilizer and which it is done by 100°C with the first sterilization. The keeping shipping step measures the completed product in the properness quantity paper box and wrapping up and

moving to the second sterilizer and keeping in the second sterilization step sterilized to 100°C with 2 hour and the room temperature avoiding the direct ray of light and put on the market.

Claims

The hovenia dulcis, hoveniae Semen cum Fructus, the jade palpus, linderiae Ramulus, multi-comb habit, glycyrrhizae Radix.

Description

- Details of the Invention
- Purpose of the Invention

The Technical Field to which the Invention Belongs and the Prior Art in that Field

- 2 The present invention relates to the manufacturing method of the food composition for the weight loss and reduction, more particularly, to the manufacturing method of the food composition for the weight loss in which notice mode can be the prevention of the obesity according to etc. and atherosclerotic or the treatment supplement and which can be very usefully used as the weight-reducing agent or the weight reduction assistance including beautiful face etc. And cholesterol reduction.
- 3 Generally, because the body mostly well is unable to adapt the body to the social environment, the cause of obesity is generated.
- 4 The pathogenic reason of the cardiac disease, hypertension, diabetes, cerebral apoplexy, among which is large of such people is the lack of exercise which it follows to seek after the convenience of the mobile tool, and the because due to the overnutrition by the meal of the Western-style putting meat diet first.
- 5 When fat the obesity (肥満, Obesity) the last days, and man telling the excitation condition the excessive fat : the weight, and the excitation is 30% or greater of the weight, in case the BMI (body mass index: body mass clinically 30.1 or greater, the present weight exceeds the ideal body weight with 20%, it is defined.
- 6 There can be the genetic factor, the environmental factor, the or more of the energy object etc as the reason of obesity. In the kind of obesity, it can classify into the basic obesity and symptomatic obesity according to reason. simple rate overeating and lack of exercise the reason, the symptomatic ratio is generated by the endocrine, hypothalamus nature, heredity, the frontal lobe and metabolic etc.
- 7 In the evaluation of the coefficient of fatness, it has the method for measuring the weight, and the skin fold thickness (use caliper). The method which is the clinical [the extension (cm) -100] evaluating the obesity rate index, it is method for most easily using as the or more weighing method (Modified Broca's method) and 0.9 is calculated ideal body weight with X and it is the method for making the present weight with percentage. It calculates as the coefficient of fatness = (the survey weight - standard weight) / standard weight × 100%. The body mass index the weight into the square of extension. Relatively BMI is not influenced in extension while relating to fat. As the normality, BMI=20.1~25 the overweight BMI is defined as 25~29.9. The obesity silver BMI is 30 or greater. At the high degree ratio is the time which is bigger than 40.1.
- 8 If it is the method for using in age less than 2 years old and it is 18 or greater, the kaup index is obesity. It is the (g) / extension (cm) × 100. In the Rohrer index is the school, while very much using as the obesity determination of student, it is 180 or greater in 110~129cm and extension 150cm or greater determines 160 or greater as the (kg) / extension (cm) 3×10⁷ in 130~149cm over 170 as obesity.
- 9 Disease due to obesity, it has the coronary artery disease, diabetes, hypertriglyceridemia, the hypertension etc.

treatment of obesity, it has the dietary therapy, the exercise cure, the behavior modification regimen, medicat

- 10 Moreover, it is the phenomenon that the part is converted into the local and that is accumulated within the ma
sidedness of internal, especially, the subcutaneous tissue and abdominal cavity to the symptoms in which adi
滿症, and obesity) become fatty in condition and overly fat and causing the barrier to exercise or the malfunct
the most of the adiposity is used up among the calorie taken.
- 11 The fat which far exceeds the necessary fat quantity in the function of the local formation is accumulated in in
and because of being failure caused by the physiological function of various diseases not only middle, espec
various diseases not only middle, especially the diabetes, hyperlipidemia, and the hypertension and coronary
disease, and the obesity patient has to devote every effort of being many to prevention and early treatment it
inside the human body.
- 12 The cholesterol which is one among the material relating to obesity is one of the fat which normally maintains
function of the human body but is obligatorily necessary. And it becomes material of the different kinds hormc
including the adrenal cortical hormone, the androgen, the female sex hormone etc.
- 13 However, if concentration is high among the blood, the essential cholesterol is caused by. It circulates with th
after the cholesterol is absorbed.
- 14 The blood-sugar numerical value mainly high shows up in the people of the overweight and such obesity but
the insulin sensitivity showing up in obesity and overweight is due to fall down. And this, is easy that the diab
to hyperglycemia etc. is caused by the obesity related disease.

Technical challenges of the Invention:

- 15 Thus, in order to develop the composition demonstrating the effect that could suppress obesity without the sic
by using the material which continued with number which was classified as the food in which the safety etc. w
secured and trusting and taken, the continued research was performed these inventors.
- 16 Consequently, it confirmed to could obtain the remarkable effect with resolving problems attacked due to the
like mentioning as described above and overweight by appropriately mixing the specific material. The effect to
because of completing the present invention.
- 17 It provides the manufacturing method of the food composition for the new weight loss showing the remarkable
medicine in the obesity inhibition effect while being not to induce the side effect and cholesterol reduction, the
has such the present invention.
- 18 The step to accomplish the above objects, that it prepares raw materials consisting of the hovenia dulcis 45 w
hovenia dulcis fruit (hoveniae Semen cum Fructus) 33 weight%, linderiae Ramulus 10 weight%, mult-comb h
weight%, glycyrrhizae Radix 3 weight%, jade palpus 2 weight% even for the manufacturing method of the foo
composition for the weight loss and cholesterol reduction like this and deletion.
- 20 Deletion.
- 21 Deletion.
- 22 Deletion.

- 23 The step that after puts in the raw materials into extractor according to the mixing ratio and it adds the bottled the appropriate amount, it heats with the temperature of 100~120°C with 5~6 hour and extracts the effective component which material contains. And deletion.
- 25 The sealed package in the sanitation vial the step that it sterilizes to the temperature of 100°C with the first it the extract filtered with the step that filtrates the impurities to the minute filter cloth it moves extract to the filter sterilizer and the extract sterilized are characterized that it is made of step, and the step that repacks the wrap finished product in the properness quantity paper box and moving to the second sterilizer and sterilized to 100 hours with the second.
- 29 Deletion.

▶ Structure & Operation of the Invention

- 30 The present invention is to provide the manufacturing method of the food composition for the weight loss using materials freezing and dries the mixing extract of the *Hovenia dulcis*, the *Hoveniae Semen cum Fructus*, *** ja mult-comb habit, the *Glycyrrhizae Radix*, the jade palpus as the effective component and cholesterol reduction is, the shaking liquid of the *Hovenia dulcis*, the *Hoveniae Semen cum Fructus*, *** jade, the mult-comb habit, the *Glycyrrhizae Radix*, the jade palpus is manufactured. The mult-comb habit and ginger (the *Linderae Ramulus* *Glycyrrhizae Radix* can be added as more according to the time.
- 31 Less than. And the present invention is illustrated in detail as follows:
- 32 The present invention relates to the food composition for the weight loss and the cholesterol reduction containing mixing extract of the *Hovenia dulcis*, the *Hoveniae Semen cum Fructus*, the jade palpus, the ginger (*Linderae Ramulus*), the mult-comb habit, the *Glycyrrhizae Radix* as the effective component.
- 33 *Hovenia dulcis* (the *trouessart* : *Hovenia dulcis* thunberg, and the department life : *Rhamnaceae*) which are the effective component of the composite according to the present invention have the hangover cure, the liver function protection action etc.
- 34 It cultivates the *Hovenia dulcis* and it goes together with the leaf less than 3 year, it uses. It is the timber grown naturally while it applies to the south of the center partial area including the Korea Ullung-do, Kangwon-do etc. exceedingly rare, the quite noble timber is comprised the coenos. Moreover, it is sickening to drink when the off-flavor (bad smell) permeating and processing to the food and the broad-leaved tree most the *Hovenia dulcis* the old timber, effect 10 assignment like that drops than the young timber. Until the maple leaves turn red first next when one of the 24 seasonal divisions occurring about the end of August is over, the gathering is possible goes together with the leaf in the picking, it mixes and it cuts in cutter in about 2~3cm and it covers up with cc makes with about 48 hours aging (it sends up) and it dries in the shade and it keeps.
- 35 such *Hovenia dulcis* to the deciduous tree of *Rhamnaceae* as the *Hovenia dulcis*. Height, there can be lenticel rhytidome the dark gray branchlet is the common reed purple it is 10~17 m. There can be *** hair it is wrapped snow is the bud scale [芽鱗] of 2. The leaf crosses each other the length 8~15 cm and the leaf is oval or the v ellipse. In the leaf the thick vein of 3 develops and the leaf has the cup saw blade in edge. The white flower size 6~7 month to dioecism but it is legalization. The flower is attached to the axillary ament. The calyx lobe and petal and style is divided into 3. The brown rotates and it is about diameter 8 mm and the berries is the clawlike of 1 seed of the respective 1 gives in 3 room of the berries. It is the brown and the glossiness has as to seed.
- 36 If it is about when the *Hoveniae Semen cum Fructus* which is the berries is ripe, the fruit stalk becomes thick becomes ruggedly. It has the dim aroma. It has the sweet taste and the food taste is raised with texture. It does 《Bon-Cho-Gang-Mok》 It had the action of letting rot and it scattered tippler and juice stopped the nausea. I

the timber as the building materials, the material for furniture, the musical instrument material etc. It is distributed in Korea (Kangwon and Jeonju by sulphuric acid in South Korea), Japan, and China.

- 37 The concentration of alcohol in blood lowering ability is prominent and the *Hoveniae Semen cum Fructus* (*Hovenia dulcis* Thunberg) which is the second effective component of the composite according to the present invention as the alcoholic poisoning solution. And effect is carried in hepatotoxicity, the steatosis, and the hepatitis prevention.
- 38 Since depending on *** picking but being the small amount, subsequently supply and demand the homemade *Hoveniae Semen cum Fructus* are the very difficult actual condition with about 8 year whether these ***ing about year, and the national some start the cultivation whether the mysterious effect of the *Hovenia dulcis* begins to be revealed since as to the *Hoveniae Semen cum Fructus*, the berries (*Hoveniae Semen cum Fructus*) begins to be known to person as the berries of the *Hovenia dulcis* over 8 year or not or not. The Chinese product is imported with large amount but effect compare to homemade and effect, and effect 10 basin 1 does not reach. The *Hoveniae Semen cum Fructus* uses the Bookhan Mountain in which effect, and effect are similar. The *Hoveniae Semen cum Fructus* the berries of the *Hovenia dulcis* for medicinal purposes and taste is sweet and the property estimates. Effect man, having an attack of indigestion the generated inflammation, getting hurt by the window and hemorrhoid.
- 39 The diuresis is strong and it expands the blood vessel and the jade palpus (*Maydis stigma*) which is the third component of the composite according to the present invention drops the blood pressure. And effect is carried in blood sugar strengthening, the shift incremental ratio promotion, the hemostasis etc. The jade palpus buys with careful selection to collect the national native jade palpus (the whisker of the corn) while referring to the corn silk and the shade.
- 40 In the *Linderae Ramulus* which is the fourth effective component of the composite according to the present invention (it calls the ginger) one room, the medicines called three chirp cupreous polished chafer is *Rhytidome* used. Cuts into the extravasated blood and postpartum of the contused wound and condition has effect in the symptom which the extremities aches. And since being distributed at very much in the Korea entire area and growing in it is quite common. Before the leaf blooms since the fallen leaves falls, it collects to (firstly the flower the *Linderae Ramulus* flowers than the leaf) and it cuts and it dries in the shade and it keeps.
- 41 It drops the heat and the mult-comb habit which is the fifth effective component of the composite according to the present invention carries effect including the detoxication, the blue color core diuresis etc. And the green tea *** picks from the cultivation complex including the Chunnam Bossung etc. to *** and it dries in the shade is selected carefully and it buys.
- 42 In the *Glycyrrhizae Radix* is the national, since the cultivation being initiated and supply and demand being present but unable to reaching the Chinese product brainwave second, the Chinese product brainwave second is bought with careful selection and it uses.
- 43 The manufacturing method of the food composition for the present invention weight loss using this materials : cholesterol reduction are as follows.
- 44 Embodiment 1.
- 45 1. Raw materials stand-by.
- 46 The raw materials consisting of the *Hovenia dulcis* 45 weight%, *Hovenia dulcis* fruit (*Hoveniae Semen cum Fructus*) 10 weight%, *Linderae Ramulus* 10 weight%, mult-comb habit 7 weight%, *Glycyrrhizae Radix* 3 weight%, jade palpus 2 weight%.

weight% is prepared for.

47 2. Fetch phase.

48 After the raw materials is put in into extractor according to the mixing ratio and the bottled water of the approx amount is added, extractor is heated with 100~120°C with 5~6 hour and the effective component which the raw materials contains is extracted.

49 Deletion.

50 Deletion.

51 3. Impurity filtration step.

52 Extract is moved to the filter and it filters to the minute filter cloth.

53 4. First sterilization step.

54 The extract filtered is moved to sterilizer and it sterilizes to 100°C with the first.

55 5. Sealed package step.

56 The extract sterilized is wrapped up in the automatic packing machine in the sanitation vial with for example, seal.

57 6. Second sterilization step.

58 The completed finished product is measured in the properness quantity paper box and it wraps up and it moves to second sterilizer and it sterilizes to 100°C with 2 hour.

59 Deletion.

60 As the food composition of the present invention manufactured after this step is the extraction beverage, contains the color and scent of the drink intrinsic to the brown. And the valid date is 2 year.

61 Embodiment 2.

62 The hovenia dulcis 70 weight% (30~70 weight%), hoveniae Semen cum Fructus 25 weight% (10~50 weight%), polyporus 2.5 weight%, jade palpus 2.5 weight% was mixed according to rate and the purified water was decocted and boiled and extract was manufactured. The other process performed identically with the embodiment 1.

63 Experimental example 1 (weight loss effect)

64 It classified the male (15.2~17.4g) white mouse of the C57 / BL6 kind into 10 head 4 group and it experiments with experimental animals like next.

- 65 The general feed was provided for the normal group. 15 weight% of the total row amount was stabilized to the group to the high fat diet-Induced to the local calorie.
- 66 The fodder separating the experimental group of the group 2 among the high fat diet-Induced and changed the composition manufactured according to the embodiment 1 of the respective present invention into the solid powder added 10 weight% and 20 weight% was provided (it records in less than, 10 weight% experimental group, and 20 weight% experimental group.), it freely took the water and fodder.
- 67 The single weight change was measured for 8 weeks in a week.
- 68 As shown in < drawing 1 > it experiments, as to the high fat diet-Induced, the weight of the average 7.1g increase after 8 weeks. And the respective 5.1g, and the weight of 4.9g increased and 10 weight% experimental group weight% experimental group compared to the high fat diet-Induced and the respective 28.2 weight%, and the increase amount of 31 weight% were suppressed ($P = 0.05$).
- 69 The next < drawing 1 > shows the weight change of the white mouse by the experimental group.

70



Deletion

- 71 Experimental example 2 (the cholesterol among the blood serum and blood sugar content analysis)

- 72 After it made starve for 12 hours and it anesthetized with the ethyl ether after the feeding experiment of 8 day cutting the abdomen open and using the disposable syringe of the heart chamber, the blood was picked. And blood serum which centrifuged 20 discrimination at 3,000rpm and obtained was used as sample.
- 73 Content and glucose of the total cholesterol, which was the tissue lipid component of the blood serum the ala transaminase (ALT: Alanine Transaminase), and the content of the aspartate transaminase (AST: Aspartate Transaminase) were measured.
- 74 The next < drawing 2 > shows the change of the cholesterol among the blood serum about the experimental (

75



Deletion

- 76 The total cholesterol content of the control group compared to the normal diet group to 179.6mg / dl and as sl the experimental result, and < drawing 2 >, the total cholesterol content of the control group increased. But it compared to the control group to the respective 124mg / dl, and 131mg / dl and 10 weight% experimental gro weight% experimental group showed the result of being reduced by the respective 31 weight%, and 27 weigh
- 77 But it nearly did not have the alanine transaminase (ALT) , and the change of the aspartate transaminase (AS
- 78 The next < drawing 3 > shows the change of the glucose among the blood serum by the experimental group.
- 79



Deletion

- 80 The blood sugar of the control group compared to the normal diet group and as shown in the experimental result < drawing 3 >, the blood sugar of the control group was increased to 156mg / dl. But it compared to the control group to the respective 116mg / dl, and 140mg / dl and for 10 weight% experimental group, 20 weight% experimental group the respective 25.8 weight%, and 10.3 weight% reduced.
- 81 The experimental result is found that it has the effect in which the composition of the present invention controls blood cholesterol metabolism. And therefore it proves that the composition of the present invention can be used for arteriosclerosis by hyperlipidemia or the cardiovascular disease etc.
- 82 Moreover, the relieving the interview nature of the insulin in which the composition of the present invention suppresses obesity and overweight and being used in the diabetes disease due to obesity thing is meant that it compares control group and the blood sugar is low.
- 83 And in the alanine transaminase (ALT) and the aspartate transaminase (AST) in which the composition of the present invention is the index of the function of the liver, it confirmed being not to have an effect on liver since being not to have an effect.

▶ Effects of the Invention

- 84 As seen in the experimental result described in the above, the composition of the present invention can be used for the product suppressing the weight by the high fat diet and total cholesterol value.
- 85 The effect suppressing the weight gain by the high fat diet is regarded that sinker is the total cholesterol amount is the accumulation of fat of internal and reason of the arteriosclerosis caused with the promotion of defecation cellulose of the present invention from thing.
- 86 Therefore, the composition of the present invention has the effect that as the prevention of obesity and arteriosclerosis or the treatment supplement including the notice mode etc, it can be very usefully used as the weight-reducing or the weight reduction assistance including the beautiful face etc.

- 87 The present invention is not restricted to the above-described specific preferred embodiment. And if without d from the gist of the present invention claimed in the claims, it experiences and it grows up under the technical the Invention, it is *** or anyone that the various transformation execution is possible. It has within the range c kind of the change silver claims material.

Scope of Claims

Claim[1] :

88 Deletion.

Claim[2] :

89 Deletion.

Claim[3] :

90 Deletion.

Claim[4] :

- 91 The manufacturing method of the food composition for the weight loss and cholesterol reduction, wherein it is step, and the step that repacks the wrapped finished product in the properness quantity paper box and movin second sterilizer and sterilized to 100°C for 2 hours with the second.